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EDITORIAL

In continuation of a student project initiated in the last quarter of academic year 1968-1969, the editorial staff of the Management Quarterly is pleased to present to its readers a number of course work papers submitted by students at the Naval Postgraduate School (NPS). The papers were selected for their excellence in terms of broad-based appeal, readability, and informative value.

A continuous effort will be conducted by succeeding editorial staff members to consider for publication all student papers submitted from every educational and research department at NPS. It is the editors' opinion that this expanded approach to the Management Quarterly will benefit the readers by providing a broad spectrum of interesting topics within or related to the general field of military management and/or operations.

In order to ensure a continuous input of student papers to the editorial staff, a Student Mail Center box (SMC 1499) has been designated for Management Quarterly use on a permanent basis. Submission by faculty members of suitable midterm papers, research work, and term project reports will be accepted at any time. We also believe that the Quarterly offers students the unique opportunity to have their research efforts recognized, and we invite those students who feel that their recent academic efforts might be of interest to others to provide the editorial staff with a copy of the work involved.

We wish to thank all faculty members for their cooperation and assistance in identifying papers for possible inclusion in the Management Quarterly. We are particularly grateful to Commander J. C. Tibbitts, Jr., CEC, U.S. Navy; Professor D. B. Burke; and Professor J. Valenta for the time devoted to reviewing the papers which are published in this issue. Our appreciation is extended in acknowledgement of the guidance provided by our advisor, Lieutenant Commander R. W. Sagehorn, U.S. Navy; as well as the invaluable encouragement and assistance of Commander J. T. Fleming, U.S. Navy; Lieutenant Commander J. D. Monza, SC, U.S. Navy; and the staff of the Administrative Science Curricular Office.

The views expressed in the Management Quarterly are those of the authors exclusively, and in no way reflect the attitude or endorsement by the Department of Defense, Navy Department, or the Naval Postgraduate School.

CIVIL DEFENSE IN THE SOVIET UNION

By Major Dallace L. Meehan, USAF

While much has been written about the U.S.-USSR arms race and the strategic balance, little research has been devoted to the philosophical differences of the two world powers concerning civil defense. This study closely examines the role of civil defense in the Soviet strategic thought. It traces the evolution of Soviet civil defense efforts started in 1923 with magazine articles for civilian defense against chemical weapons, to the present program that includes mandatory educational requirements for school children, annual exams that are compulsory for all citizens, and practical, realistic simulations that test the country's preparation and capability to survive a nuclear attack.

This paper was presented to Professor D. P. Burke in partial fulfillment of the course requirements for Problems of Government and Security, Contemporary Europe (GV 3268).

The Editors

Major Dallace L. Meehan, U.S. Air Force, received a B.S. degree in Liberal Arts from the University of the State of New York at Albany and a B.A. degree in Business Administration from Florida State Christian College. He has completed thirty-two hours of study for a M.A. degree in Public Administration from the University of Northern Colorado. He is currently a candidate for the M.A. degree in National Security Affairs at the Naval Postgraduate School.

I. Foreward-Introduction

While much has been written on the apparently popular subject of the U.S.-USSR arms race and the strategic balance, relatively little attention has been given to a very significant, though undramatic element of that balance. An examination of that element, the Soviet civil defense program, is the purpose of this study. Highly analytical discussions on the strategic balance have been published, and some allude to the "massive and meticulously planned civil defense effort" of the Soviet Union,[1] or state that Soviet civil defense is well developed and should be considered.[2] But for the most part U.S. policy makers and policy debaters continue to discuss deterrence, Soviet strategy, arms limitations, and the strategic balance without adequately considering the important element of Soviet civil defense and its implications. Perhaps as Dr. William Scott has pointed out, writing in the Summer 1975 edition of Strategic Review:

> There is a strange reluctance in the West to examine Soviet writings...It is much easier to sit on the fence and speculate what course the Soviets might take. A thorough analysis of Soviet publications on military matters, combined with known facts about Soviet weaponry could present explanations of Soviet behavior (and beliefs regarding nuclear war) that would be uncomfortable to study.

In an attempt to overcome the reluctance referred to by Dr. Scott, an important source of information for this paper has been news releases and editorials that have appeared in Soviet publications. I have relied principally upon translations of the U.S. Joint Publications Research Service (JPRS), "Translations on USSR Military Affairs," and the National Technical Information Service of the U.S. Department of Commerce.

Accepting information contained in Soviet publications at face value is often criticized. While a certain amount of rhetoric and bureaucratic propaganda is to be expected, the carefully controlled Soviet news media plainly reflects official governmental position. Inspection of the Soviet media therefore, can reveal valuable information concerning procedural changes, policy trends, and other important developments.

The USSR has a history of inconspicuous development of important projects that are often clouded by myths and preconceptions harbored especially in the West. Soviet civil defense preparations have received little publicity in Western news media, as did their work in space technology prior to the launching of Sputnik in 1957. Soviet literature on military strategy and nuclear war clearly points out that the Soviet Union believes that nuclear war is possible, and even more important, that it is survivable. The prestigious Military Strategy: Soviet Doctrine and Concepts, edited by Marshal V. D. Sokolovsky, indicates that civil defense is an important element in strategic defense.[4] While leading U.S. theorists and military strategists have often viewed the massive use of nuclear weapons in terms of total destruction of civilization, and therefore politically and morally "unthinkable," this view is not shared by their Soviet counterparts.[5] Dr. Malcolm Currie, Director of Research and Engineering with the U.S. Department of Defense, emphasizes that Soviet politico-military thought not only considers nuclear war as "thinkable," but indeed, perhaps inevitable.[6] Since the mid-1950's, when the Soviet Minister of Foreign Affairs, Georgi Malenkov, spoke of the destruction of world civilization, and was sharply admonished by Premier Nikita Khrushchev, the prevalent Soviet attitude has been that the USSR would survive a nuclear war. Rear Admiral V. Sheliag, one of the Soviet Union's leading military spokesman, is reported to have expressed his opinion that while it is claimed in the West that humanity and world civilization would perish in the event of nuclear war, Marxists-Leninists have always considered thermonuclear war a great calamity, but harbor no sentiments of hopelessness or pessimism.[7] There can be no doubt that civil defense plays an important role in Soviet strategic thought.

II. BACKGROUND AND DEVELOPMENT

Civil defense in the Soviet Union dates back as far as the 1920s when the thesis of the "inevitability of war" between the USSR and the capitalist powers was a basic part of Communist dogma. Articles appeared in Soviet magazines as early as 1923 that dealt with the civilian defense against chemical weapons. Civil defense planning began in earnest in 1931 with emphasis placed on the threat of incendiary weapons used in air attack on cities. Hitler's accession to power and aggressive overtones led the Soviet Union to build bomb shelters and to develop a civil defense organization. The first nation-wide civil defense training program was launched in 1935, and some 38 million persons were given a 20-hour civil defense course and awarded badges of completion,

"Ready for Air and Chemical Defense, 1st Grade."[8] Efforts were stepped up following the German attack on the Soviet Union to the extent of general mobilization of the population. Civil defense training was made compulsory for all men and women between the ages of sixteen and sixty in July 1941. During the course of the war it is estimated that some 137 million persons received civil defense training.[9]

Interest in civil defense declined following the end of World War II, and compulsory training of the population was discontinued. The par-military organization Dobrovolnoc Obshchestvo Sodeistviia Armii, Aviatsii i Flotu (DOSAAF)[10] was organized in 1951, and the following year participation in a 20-hour civil defense course was made compulsory for all of its estimated 15 million members. Until 1954 however, Soviet civil defense training suffered from a failure to appreciate the significance of nuclear weapons.[11] Mention of atomic weapons first appeared in Soviet civil defense manuals in 1954, and in 1956 the threat of bacteriological weapons was included. Since then, Soviet civil defense has been concerned with the entire range of modern weapons.[12] In an interview with Henry Shapiro in 1960, Premier Khrushchev boasted that the Soviet Union would survive a nuclear war, emphasizing the strategic edge afforded the Soviets due to greater dispersal of its population and industry.[13] Deliberate dispersal of industries away from population centers has continued to be an integral part of the Soviet Union's long-term civil defense program.

The program was given an authoritative boost at the Twenty-Third Congress of the Communist Party of the Soviet Union (CPSU) in 1966 when the Central Committee called for increased emphasis on civil defense.[14] This was acted on by the government which passed the "1967 Law on Universal Military Duty," Article 17 of which calls for compulsory civil defense training in primary, secondary and technical schools throughout the Soviet Union. Implementation of the law resulted in every Soviet school child receiving some 115 hours of civil defense instruction by the time he completes tenth grade.[15]

By 1969 the Soviet Union was publishing civil defense handbooks and other publications which have been carefully studied by the Oak Ridge Civil Defense Research Project who found them to be noteworthy for their practicability and completeness, especially their plans for the evacuation and dispersal of the urban population into the rural areas. It was for these reasons, and for the fact that no comparable

handbook had been published in the United States, that personnel of Oak Ridge translated the 1969 edition for the National Technical Information Service of the U.S. Department of Commerce.[16]

III. CURRENT ORGANIZATION

Civil defense is organized throughout the Soviet Union on a territorial-industrial basis. It involves all branches of government as well as all plants, institutions, schools, "kolkhoze" or collective farms, and "sovkhoze" or state farms, virtually including the entire population. Responsibility for the implementation of the program is shared by party, government, administrative, and industrial leaders.[17] By elevating the direction of the entire civil defense program to the deputy defense minister level during the 1973 structural and organizational changes of the Soviet high command,[18] the program is now given official regard on a par with the military services.

Below the national level, civil defense follows the territorial-administrative organization of the Soviet Union with a civil defense chief assisted by a permanent staff at every level of government. In each republic for example, the deputy minister for internal affairs heads a staff of civil defense officials responsible for all civil defense programs within that republic. Next, at the "oblast" or regional level, the organization will be headed by the chief administrator, usually the chairman of the provincial executive committee. Still further down the governmental structure is a "rayon" or county civil defense organization, and a city or village organization. Below the city or village level, civil defense is broken down and organized by economic unit. An urban economic unit might be a factory, school, or office complex, while a rural economic unit might be either a collective farm or state farm.[19]

These economic units at the local level constitute the operational level or civil defense, for here one finds the basic civil defense unit of the Soviet Union, the formation, as well as various sub-units such as brigades, cells, detachments, teams, or squadrons. Formation sub-units vary in size from three to eight persons, and perform the specialized functions such as decontamination, communications, fire fighting, emergency medical treatment, veterinary services, and sanitation. In the case of smaller factories and installations, or villages with only 200-500 residents, formations will consist of "unitarnoye" or all-purpose sub-units, staffed by individuals who are trained in specialized skills.[20]

IV. CURRENT POSTURE

In 1972, about the time the Strategic Arms Limitation Treaty (SALT) agreements were signed, the Soviet Union initiated a major effort to upgrade its civil defense program. Only a few months after the signing of the Anti Ballistic Missile (ABM) Treaty, the position of Chief of Civil Defense of the USSR was elevated to the Deputy Minister of Defense level, and filled by Colonel General A. T. Altunin, who in 1973 ordered a complete review of the program. The major outcomes of that review were embodied in the present Soviet civil defense posture, briefly outline here.

Soviet civil defense is divided into three separate task groupings. The first group are those measures related to the protection of the population and includes evacuation and dispersion procedures, and the construction and preparation of protective shelters. The second group is concerned with measures that increase the survivability of industrial facilities and centers of production. The third group are those tasks related to emergency repair and rescue operations as well as techniques and procedures for decontamination.[21] The entire Soviet civil defense program considers all steps necessary to guarantee population and industrial survival in the event of nuclear war. It is interesting to note that to a large degree the Soviet program embodies the findings and recommendations resulting from the United States Strategic Bombing Survey of Nagasaki and Hiroshima, a study undertaken with painstaking care to assess the precautions necessary to survive future nuclear wars.[22]

Until as recently as 1975, the keystone of the entire Soviet civil defense posture has been evacuation and dispersion of civilian personnel from urban centers. Even with the recent shift in emphasis to the reliance on shelters, evacuation and dispersion continues to be a necessary and important defensive measure. For example, during the last decade 80% of all new industry has been dispersed to some one thousand small and medium-sized towns with an emphasis on bomb-resistant construction, low building density, and the stockpiling of a one-year food supply for workers and livestock.[23]

Evacuation and dispersion has progressed well beyond the planning stage, and mass exercises involving the populations of entire villages in rural areas, and entire industrial units in urban areas have been carried out. For example, a ship-building village in Leninskiy Rayon (near

Sevastopol) was evacuated during an exercise by a refrigeration fleet located at the local port. Even housewives and retired persons were evacuated to "SEPs" (combined evacuation points) which contained various types of shelters and emergency supplies.[24]

In Tallin, capital of the Estonian Soviet Socialism Republic (SSR), the city's taxicab fleet was mobilized for exercises in evacuating people from the city, driving through areas of simulated fire and radioactivity.[25] The exercises also included demonstrations of procedures for decontaminating vehicles under field conditions using mobile facilities, and the operation and use of radioactive detection equipment.[26] According to official government handbooks, the Soviet Union's plan for evacuation includes the use of all means of transporation: railways, cars and trucks, riverboats, ships, and airplanes. Dispersal areas are located from 60-80 kilometers (37-50 miles) from city centers. It is intended that only essential workers and supervisors will be dispersed, and all others evacuated to outlying rural areas.[27]

A recent Soviet publication, Civil Defense Yesterday and Today by K. G. Kotlukov, has indicated a shift in the Soviet concept of population protection. While evacuation and dispersal is still essential, the basic method of protecting the population is now alleged to be sheltering them in protective structures.[28] The degree to which this policy change has been implemented in terms of actual construction is certainly subject to question and beyond the scope of this report, but would make a suitable area of investigation for attache and intelligence personnel.

Soviet civil defense authorities consider protective shelters within two broad categories: (1) shelters designed to protect against immediate effects of nuclear weapons such as blast, light, and thermal radiation, and (2) dugouts (emergency shelters intended to protect against fallout) that can be built rapidly by unskilled citizens during crisis escalation. The Soviets also stress adapting cellars, silos, and storage rooms to emergency shelters by reinforcing with props or posts, and providing shielding with a layer of earth above the ceiling.[29] An integral part of civil defense plans in the major cities is the use of subways as mass public shelters. Photograhpic evidence of the Moscow subway equipped with blast doors was introduced in Congressional Hearings in March of this year.[30] Estimates are that the Moscow subway could shelter some one million Soviet citizens.

While not generally given credit for operations from a technologically sophisticated base, Soviet civil defense operations were employing mobile radio communications systems for dispatch and control of mobile repair and technical service equipment as early as 1971, even in rural areas. Mobile repair and technical service equipment is normally assigned to all district administration areas that contain either collective or state farm production units. These units were being equipped with RSV-1 ultra high frequency radiotelephone sets as replacements for older Nedra-P sets which had a less effective range.[31]

V. EDUCATION AND TRAINING

The Central Committee of the Twenty-Fourth CPSU, in 1973 again increased the importance of the civil defense role in the Soviet Union. Instructions by the Committee called for restructuring and improvement in all areas of civil defense, but emphasis appears to have been on techniques and quality of training and education. It is in the area of training that Soviet efforts excel.

Civil defense training has been compulsory in the Soviet Union since 1954. A total of six training courses were given from 1954 to 1973, totaling some 104 hours of instruction for all men sixteen to sixty and all women sixteen to fifty-five years of age. In 1972 a course was introduced into the second grade school curriculum, consisting of five to six hours taught in 45-minute sessions throughout the school year. This course was designed to concentrate on the use of gas masks and has required the students to actually wear them for a minimum of ten minutes each period. In preparation for teaching the course, all second-grade teachers must have attended a two-to-three day civil defense refresher course.[32] Increased emphasis on the education of young schoolchildren has also been seen in an increased availability of civil defense literature appearing in public libraries. There have been several new books and brochures, even novels, which deal with nuclear war and its effects, all specially designed for the "poorly trained reader" and young child.[33] Civil defense education in secondary and higher technical schools was completely revised as recently as 1975, and beginning in 1976, all high school and technical school students have been given a fifty-hour block of training at the instructor level.[34] These courses have been designed to provide them with the means to protect themselves and the population, as well as to fulfill duties of command-leader positions in civil defense formations. They are also taught procedural methods of teaching civil defense to others.

Another recent embellishment which began in 1975 was the introduction of a series of twenty annual exams that are compulsory for all citizens. Regardless of previous training, all persons are now required to annually "reconfirm" by taking the complete battery of tests. Included is a demonstration of the proper fitting and operation of gas masks, and the operation of a geiger counter.[35]

While civil defense education and training has been stressed since 1954, recent emphasis has been on practical, realistic exercises. Colonel-General V. Grekov, Deputy Director of Civil Defense for Political Affairs, in criticizing the older methods of conducting exercises, referred to them as "meaningless exercises, reduced to notification and assembly of personnel, in-ranks inspection, and verbal testing of knowledge."[36]

The degree to which the Soviets stress practicability and realism in their exercises can be seen in numerous examples since 1973. For example, an exercise conducted last year for power plant installation personnel in the Karelian Republic involved the replacing of insulation on power poles, simulated rescue of electrocuted persons, the rendering of emergency medical aid, and the actual erecting of several poles and stringing electrical cable for a 35 kilo-volt power transmission line. The entire exercise was carried out by workers wearing gas masks and full protective clothing.[37] In another exercise held last year in the Kazakh Republic, all citizens of the Leninskiy Sovkhoz (state farm) participated in a simulated nuclear blast and fallout alert. Emergency shelters were constructed using dirt bags, bricks, and lumber. According to reports, within minutes of the air alert and threat of radioactive contamination signals, all residents were in the shelters and the village was empty.[38] In a civil defense exercise conducted at a railroad car repair plant in Novorossiysk in 1974, participants were commended for their realistic approach to the simulated nuclear attack. Road scouts in protective clothing were dispatched to check for radiation levels. A decontamination detachment headed by the deputy shop chief washed down shop walls with powerful jets of water from fire hoses, and young women in protective suits and gas masks, members of the medical team, practiced first aid.[39]

An interesting innovation under the leadership of civil defense chief Colonel-General A. T. Altunin, was the development of special civil defense training areas complete with full-scale mock-ups and training compounds.[40] One

such training area was constructed in the city of Aktyubinsk of the Kazakhskaya SSR in the form of a minature village measuring 150 by 200 meters, which can accomodate three-to-four exercises per day. Designed primarily for exercises in decontamination, fire-fighting, emergency medical care, and rescue operations, this training compound reportedly cost only 12,500 rubles (approximately $16,250). More elaborate facilities constructed in Klev, Kazakhstan, and the Ukraine range in cost from 60,000 to 73,000 rubles (approximately $78,000 to $94,900).[41]

Should one take comfort in the belief that Soviet accounts (from which all of the reports in this study come) may overrate the effectiveness of civil defense exercises, let me point out that there is no hesitancy on the part of Soviet authorities to publicly criticize those measures that fail to measure up to expectations. An inspection of the civil defense program in the Komi SSR conducted in 1974 severely criticized responsible officials for failing to create a full-sized training compound. It was also pointed out that the established five-day training courses for civil defense units consisted of nearly 50% classroom lectures, slide presentations and movies, with insufficient "practical time"[42] - - again reminiscent of disaster control training courses given in the U.S. military. The civil defense staff of an industrial unit in Chita was publicly scorned in 1975 for poor scheduling of required exercises, specifically for not scheduling exercises in the Winter months. The attention of responsible officials was called to other industrial units in Chita which had effective programs, and then were encouraged to "draw the necessary conclusions."[43]

VI. CONCLUSIONS

What are the implications of Soviet civil defense? In testimony before the House Armed Services Committee this year, T.K. Jones, one of this nation's foremost experts on civil defense and technical advisor to former SALT negotiator Paul Nitze, detailed the result of studies conducted to determine the survivability of the Soviet Union in the event of nuclear war. The findings were nothing short of alarming to the distinguished members of the committee, but should come as no shock to readers who have patiently followed me thus far.

Summarized, Jones' report disclosed that if the entire U.S. retaliatory arsenal were delivered against the Soviet Union, an aggregate land area of only three percent would

be destroyed. And even if retaliation was directed at counter-value targets of population centers, simulation of a conservative Soviet evacuation effort, assuming no shelter protection from either blast or fallout, fatalities would number some 20 million or about eight percent of the population. Further simulation that assumed the availability and use of even simple shelter facilities of the dugout variety, would reduce fatalities to less than two percent of the population, or some six million.[44] While this is not intended to be a comparative analysis, it may help to put these statistics in better perspective by referring to results of a post-nuclear attack study (PONAST II) conducted by the U.S. Defense Civil Preparedness Agency.[45] The purpose of PONAST II was to determine the survival and recovery prospects of the United States following a hypothetical nuclear attack by the Soviet Union. The postulated attack of PONAST II resulted in a 57% U.S. population loss - some 145 million fatalities.[46]

There appears to be a tendency for Americans to believe that Soviet civil defense is a myth, or merely a ploy of Soviet propaganda, and that in the final analysis it will not work or does not exist. Such false hopes, while comforting, are dangerous. United States strategic thinking must reassess the role of civil defense as an important element in the strategic balance.

Footnotes

1 Paul H. Nitze, "Assuring Strategic Stability in an Era of Detente," Foreign Affairs 54 (January 1976): 211.

2 Conrad V. Chester and Eugene P. Wigner, "Population Vulnerability: The Neglected Issue in Arms Limitation and the Strategic Balance," Orbis 18 (Fall 1974): 763.

3 William F. Scott, "Soviet Military Doctrine and Strategy: Realities and Misunderstandings," Strategic Review (Summer 1965): 65.

4 Marshal V. D. Sokolovsky, Military Strategy: Soviet Doctrine and Concepts (New York: Praeger, 1963), p. 336.

5 U.S., Congress, Senate, Committee on Foreign Relations, Analyses of Effects of Nuclear Warfare, September 1975, p. 29.

6 Malcolm Currie, Pentagon News Conference, February 26, 1976, cited in Journal of Social and Political Affairs (April 1976): 116-17.

7 Leon Goure, Soviet Civil Defense in the Seventies (Coral Gables: Center for Advanced International Studies, Univ. of Miami, 1975), p. 17.

8 Leon Goure, Civil Defense in the Soviet Union (Los Angeles: Univ. of California, 1962), pp. 1-4.

9 J. H. Meisel and E. S. Kozera, Materials for the Study of the Soviet System (Ann Arbor: Wahr, 1950), pp. 266-67.

10 DOSAAF translates to Voluntary Society for Assistance to the Army, Air Force, and Navy.

11 Goure, Civil Defense, pp. 7-10.

12 Ibid.

13 "Khruschev Interview with Henry Shapiro," Pravda, January 15, 1960, trans. Current Digest of the Soviet Press 12 (February 1960).

14 O. V. Tolstikov, "CPSU on Imperative Upgrading of Civil Defense," Atomizdat, (Moscow), trans. USSR Military Affairs 485, JPRS, (October 22, 1968), p. 8.

15 "Secondary School Civil Defense Curriculum," Voyennyye Znaniya 9 (1968), trans. JPRS, (November 6, 1968): 40-46.

16 Grazhdanskaya Oborona, (Civil Defense), ed. N. I. Akimov (Moscow: Kolos, 1969), pp. i-ii, trans. Oak Ridge National Laboratory, 1971.

17 Ibid., p. 15.

18 A. Ghebhardt and W. Schneider, "The Soviet High Command: Recent Changes and Policy Implications," Military Review (May 1973): 3.

19 Goure, Civil Defense, pp. 16-20.

20 Grazkdanskaya Oborona: 1969, pp. 15-32.

21 M. N. Titov, P. I. Yegorov, and B. A. Guyko, Grazhdanskaya Oborona (Moscow: 1974), trans. JPRS, (August 27, 1974), pp. 20-25.

22 Grazhdanskaya Oborona: 1970 (Moscow: Kolos, 1970), trans. National Information Service of the U.S. Department of Commerce, pp. 3-7.

23 P. C. Hughes and M. R. Edwards, "Nuclear War in Soviet Military Thinking," Journal of Social and Politcal Affairs (April 1976): 121.

24 V. Odnolko, "Useful Lessons," Sovetskaya Estoniya, (November 1971): 16-17, trans. JPRS, (January 5, 1972).

25 My first reaction to the use of taxicabs for evaluation was one of skepticism. Upon reflection however, it occurred to me that radio-equipped cars could be rapidly mobilized and effectively controlled from a central dispatch center. Cab drivers are familiar with communication procedures, accustomed to dispatch, and certainly knowledgable of city traffic.

26 "Tallin Civil Defense Work," Sovetskaya Estoniya, January 18, 1974, trans. JPRS, (February 25, 1974).

27 Grazhdanskaya Oborona: 1969, p. 67.

28 Harriet Fast Scott, "Civil Defense in the Soviet Union," Air Force 59 (August 1976): 73.

29 Grazhdanskaya Oborona: 1969, p. 53.

30 U.S., Congress, House, Subcommittee on Investigations of the Committee on Armed Services, Hearings by the Civil Defense Panel, February-March 1976. Hereafter referred to by date as "Hearings."

31 V. Poletayev, "And for Defense Measures," Voyennyye Znaniya 11 (November 1971), trans. USSR Military Affairs, JPRS, (January 1972).

32 G. Prikazchikova, "A New Subject in the Schedule," Narodnoye Obrayovanive 12 (December 1971), trans. USSR Military Affairs, JPRS, (January 1972).

33 "Give Me a Book Which...," Sovetskiy Patriot, June 11, 1975, trans. JPRS, (July 23, 1975).

34 G. A. Karpov, "New Program for Civil Defense Training," Vestnik Vysshey Shkoly 4 (April 1975): 31-32, trans. JPRS, (January 9, 1975).

35 "You Are Taking the Standard Tests," Voyennyye Znaniya 2 (February 1974), trans. USSR Military Affairs, JPRS. (March 1974).

36 Col-Gen V. Grekov, "Requirement of the Times," Voyennyye Znaniya 8 (August 1973): 8-9, trans. USSR Military Affairs, JPRS, (November 7, 1973). Grekov's description gives me an uncomfortable feeling of nostalgia as I think back on the infrequent "disaster control" exercises that I've participated in. Civilian preparatory exercises in the U.S. when held at all, are even less structured and more infrequent.

37 Col (Ret) G. Sokol, "Great Concern for Installation Staffs," Voyennyye Znaniya 3 (March 1975): 28-29, trans. JPRS, (April 1975).

38 Col Y. Yakovenko, "In a Complex Situation," Voyennyye Znaniya 4 (April 1975): 31-32, trans. USSR Military Affairs, JPRS, (May 1975).

39 "Test of Readiness," Krasnaya Zvezda, December 13, 1974, p. 1, trans. USSR Military Affairs, JPRS, (January 15, 1975).

40 Col-Gen A. Altunin, "The Main Direction," Voyennyye Znaniya 12 (December 1973): 4-5, trans. USSR Military Affairs, JPRS, (February 21, 1974).

41 Col A. Zavtiev, "A Double Advantage," Voyennyye Znaniya (January 1974), trans. JPRS, (March 11, 1974) and "Hearings," March 2, 1976.

42 Lt Col (Ret) I. Moskovskiy, "An Anonymous Letter to Himself," Krasnaya Zvezda (March 27, 1974): 2, trans. USSR Military Affairs, JPRS, (April 1974).

43 I. Krepkin and P. Gorbunov, "Using Old Stereotypes," Voyennyye Znaniya 4 (April 1975): 32-33, trans. JPRS, (June 20, 1975).

44 "Hearings," March 2, 1976.

45 This study was undertaken by an interagency study group at the request of the Joint Chiefs of Staff. The scenario postulated a Soviet first strike of 1400 warheads with 6800 megatons of nuclear explosives. One-third of the Soviet megatonnage was assumed delivered on U.S. urban industrial targets with 10% of the urban population evacuated.

46 Hughes and Edwards, "Nuclear War," p. 125.

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YUGOSLAVIA'S FOREIGN THREAT AND ITS TERRITORIAL DEFENSE FORCE AS A DETERRENT

by

Captain Michael J. O'Grady, USA

The author examines the defense posture of a non-nuclear nation which resists ties with a nuclear superpower. Specifically, the threat to Yugoslavia is examined, along with an explanation and analysis of the Territorial Defense Force, Yugoslavia's response to the threat.

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The Editors

I. INTRODUCTION

Since World War II the word "deterrence" has practically been synonymous with the prevention of nuclear war. Literature on the subject is voluminous, but comparatively little has been written on the deterrence strategies of non-nuclear nations. Those scholars who have become interested in the application of deterrence theory to non-nuclear conflicts for the most part restrict their studies to the use of non-nuclear forces within the framework of potential escalation to a nuclear exchange.

Yet the vast majority of the world's nations possess neither weapons of their own nor firm superpower commitments to provide a defensive nuclear umbrella. Not only are such nations without a nuclear deterrent, but most also lack assurances that larger powers would lend conventional support against an aggressor. Thus many countries have been left to their own devices in the creation of an adequate deterrence and defense. Most of these lie beyond the periphery of

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Captain Michael J. O'Grady, U.S. Army, received his B.S. degree in Geography from DePaul University. He is presently a candidate for the M.A. degree in National Security Affairs at the Naval Postgraduate School.

superpower interest and for that reason have been excluded from major alliance systems. Other nations, though important to the powerful states, consciously avoid defensive agreements and the system of deterrence which they entail in order to maximize whatever freedom of action might be available during periods of crisis, coexistence or war.

One such nation is Yugoslavia. Important to both NATO and the Warsaw Pact, it is a member of neither. Yugoslavia eschews nuclear and conventional defense commitments from both blocs. It reasons that alliances would seriously impair its independence and possibly involve it in conflicts of foreign origin.

By rejecting inclusion in either bloc, Yugoslavia opted to bear the full responsibility for its own defense and the deterrence of potential aggressors. Having taken on this responsibility, Yugoslav leaders faced the problem of how to allocate limited resources to meet their defensive ends. Another task has been to convince their more powerful neighbors of the seriousness and effectiveness of Yugoslav defensive preparations in order to deter them from attack.

Yugoslavia has a unique political and historical experience; a special threat to its sovereignty has evolved from that experience. Furthermore, Yugoslavia has employed unique measures to deal with that threat. This paper is intended to evaluate the success of Yugoslavia's deterrence and defense policies in view of its distinctive threat and response. Yugoslavia also serves as an excellent case study for the larger question of how small or moderately sized socialist nations might under similar circumstances achieve independence from Soviet control. This paper, then, hopefully has a utility greater than what might be derived from the study of the Yugoslav threat and defense system alone.

First, this paper will evaluate the threat against Yugoslavia as it is perceived by the nation's leadership and population. An understanding of that threat, and the historic background against which it is framed, go a long way toward explaining the rationale for creation of the Territorial Defense Force, Yugoslavia's response to the threat. In the second section relatively more emphasis will be placed on an examination of the Territorial Defense Force (TDF) than on the Yugoslav People's, or regular, Army (YPA) because the TDF constitutes the major proximate deterrent against foreign interventions as well as a

radical innovation in defense planning. The next section will concentrate on an analysis of the TDF - its roles, missions, organization and capabilities. The final section will offer conclusions on the effectiveness of the Yugoslav defense forces and policies as a deterrent. Although it is difficult to determine what role Yugoslavia's military preparations have had in thwarting past aggression, this paper will provide some indication of the degree of effective deterrence Yugoslavia may possess in the future.

II. THE THREAT TO YUGOSLAVIA

Yugoslavia is still a young nation. Born out of post-World War I international agreements, the new nation united independent regions with several other territories recently acquired from the Austro-Hungarian and Ottoman empires. Seldom has a nascent nation been provided at its outset with less cultural cohesion than was Yugoslavia. Not all of its citizens were Slavic, nor even Christian; the nation was populated by more than ten distinct ethnic groups who spoke almost as many languages; three separate systems of script were commonly used throughout the land. But the newly christened "Yugoslavs" did share geographical proximity and, as much as they shared unity in any cultural experience, they possessed a common heritage of foreign hegemony and bloody opposition to the various alien administrations.

The interwar period was chaotic. Regimes rose and fell with alarming frequency. The twenty years between wars witnessed Yugoslav experiments in democracy, dictatorship, monarchy, and military government. Meanwhile, ethnic separatism brewed under the surface of Yugoslav politics and periodically erupted in strident Croat or Slovene demands for autonomy from the successive Serbian-dominated regimes.

But World War II again brought a modicum of unity to Yugoslavia's various ethnic groups. The German invaders in 1941 took advantage of separatist sentiment among several nationalities and dismembered the country through annexation, occupation, and creation of puppet regimes.[1] Although some Yugoslavs, particularly in Croatia and Slovenia, actively supported this partition, the majority of the population rose in united opposition to Axis political control.

The struggle which ensued can only be described as one of the most epic and uncompromising guerrilla defenses in history. The nation suffered greatly for its heroic resistance. Yugoslav sources admit that the National Liberation Army, or communist partisan command, sustained 730,000

casualties and that the general population incurred almost one million additional dead. Furthermore, "over 50 per cent of the industrial and mining potential was destroyed; transport was virtually paralyzed" and "over 60 per cent of all livestock was destroyed."[2] Yet, despite fratricidal war between the NLA and the Chetnik forces under Mihailovic, the resistance persisted with unabated tenacity.

By late 1943 the National Liberation Army had tied down more than 31 Axis divisions in Yugoslavia.[3] And by May 1945 Yugoslav forces managed to drive all but scattered enemy remnants from national territories. The NLA had received considerable support from the Allies, consisting primarily of supplies from the British and Americans and strategic aid in the form of a military offensive from the Soviets, but the fact remains that, by the time the Soviet Red Army entered Belgrade in October 1944, the Yugoslavs had effectively won their own liberation.

Marshal Tito had commanded the National Liberation Army and emerged as the political leader of a reconsolidated Yugoslavia. A Croat himself, there was no one in whom the spirit of Yugoslav nationalism burned hotter. Tito rapidly moved to eradicate vestiges of separatist sentiment and to impose political solidarity under the League of Communisits of Yugoslavia.

Tito at first appeared to have instituted a doctrinaire pro-Soviet regime in Yugoslavia. The Soviet economic model, for instance, was initially used as a basis for Yugoslav redevelopment. Nationalization of the means of production and collectivization of agriculture were initated; central control of the economy was implemented.[4] In foreign affairs Tito actively encouraged the postwar spread of communist influence by provisioning Greek partisans and allowing their use of Yugoslav territory as a base of operations against the central government in Greece.

Tito, however, soon became disenchanted with his country's role within what later came to be known as the "Socialist Commonwealth." In 1948 he announced an economic program which was in serious conflict with Soviet plans.[5] At issue was the Yugoslav desire to develop a self-sufficient economy versus the Soviet intention that Yugoslavia should provide resources in exchange for finished goods of Russian manufacture. This conflict (as well as the general question of Yugoslav autonomy within the international Communist political system) led to Yugoslavia's exclusion from the Council for Mutual Economic Assistance and its virtual isolation from

trade with the nations of Eastern Europe. Stalin evidently felt this measure alone to be sufficient to chastise Tito and return him to the Soviet fold.[6] He was badly mistaken.

The break between Moscow and Belgrade has persisted at fluctuating levels of intensity to this day. Tito's insistence in 1948 on national self-determination of economic planning catalyzed or served as justification for, his subsequent doctrines of political independence and non-alignment. From 1948 to the present Tito has managed to maintain Yugoslavia's independence outside the orbit of direct Soviet influence.

From 1948 to 1968 the threat from the Soviet Union remained basically economic. Cut off from trade with Eastern Europe, Yugoslavia turned increasingly to the West for aid and gradually transformed its economy into a market, or profit, motivated system more in line with that of its new trading partners. Tito also relied heavily on the West for military assistance[7] to his predominantly conventional armed forces. But Tito was ever wary of establishing overly intimate relations with the Western powers. Not only did Tito sincerely believe in his policy of non-alignment, but he also sought to avoid intervention by either bloc because one perceived Yugoslavia to be increasingly reliant on the other.[8] As tenuous as his situation was, Tito never felt that Yugoslavia's independence was seriously threatened during the two decades beginning with his split from Soviet influence in 1948. The events of 1968, however, were destined to impact heavily on Tito's threat perception.

The Soviet invasion of Czechoslovakia in August 1968 came as a shock to Tito and the Yugoslav people and raised fears that Yugoslavia might be dealt with similarly. Two months after the invasion Tito declared that the Russians "do not like our social order, they do not like our system, they do not like our road to socialism and communism, they do not like our democracy."[9] This acknowledgement of the fact that Yugoslavia had served as a thorn in Moscow's side and as an example for other nationalistic-minded socialist nations since 1948, plus the implications of the newly articulated "Brezhnev Doctrine" which condoned Soviet intervention anywhere within the "Socialist Commonwealth" when Moscow decided communist principles were in danger of compromise, sent a collective chill up the spines of nearly all Yugoslavs.

Nor was the reawakened threat merely a matter of perception. Tito had been closely identified with Dubcek and the 1968 Czech reforms; now the Soviet, Polish, East German,

and Bulgarian press loosed a bitter propaganda campaign blaming Tito for Czech "revisionist activity" which made the intervention necessary.[10] Bulgaria also renewed agitation over its claims to portions of Yugoslav territory demanding that Yugoslav Macedonia be returned to its "rightful owner." As if to underwrite this claim, the Soviet Union, for the first time since World War II, transferred several divisions of troops to Bulgaria.[11] Furthermore, the Soviet Union again began to pressure Romania to allow Warsaw Pact maneuvers inside that country.[12] If conducted, such maneuvers would both retard Romania's growing independence and serve as a potential vehicle, much in the same way as similar exercises had camouflaged the Czech invasion, for intervention in Yugoslavia.

Tito's immediate reaction to the Warsaw Pact intervention in Czechoslovakia was threefold. Toward the Soviets Tito was concilliatory. He played down Yugoslav fears of an imminent Russian invasion[13] and sought to assure the Soviets that Yugoslavia was in no danger of slipping into the Western system "or of abandoning its socialist position."[14] But at the same time he discreetly brought the military to a high state of readiness, called up some reserves, requisitioned civilian vehicles and conducted a wholesale distribution of arms to the population.[15] Tito further signaled Yugoslav intentions in a series of fighting speeches. In October 1968 Tito declared that "whoever tries to jeopardize our independence and sovereignty will encounter the iron will of our people."[16] The next month, in comparing what the Yugoslav response would be to a Czech-type intervention he stated that ". . .in our country it could not be as in Czechoslovakia. Even though we might want to, we would not be able to compel the people to look on peacefully."[17] And in 1969, during a visit from Andrei Gromyko, the Soviet Foreign Minister, Tito pointed out that "spheres of influence stop at the Yugoslav frontiers."[18] The third facit of Tito's post-Czechoslovakia response was on the diplomatic front. He met with Nicolae Ceaușescu, the Rumanian leader, within days of the Czech intervention;[19] and in mid-November Tito held discussions with Nicholas Katzenbach, the American Undersecretary of State, in Belgrade.[20]

Thus it can be surmised that in Yugoslav eyes a definite threat grew out of the 1968 intervention in Czechoslovakia. It may never be known whether the Soviets seriously considered intervening in Yugoslavia during this period, but it is safe to conclude that Tito's policy at that time was designed to deter such ambitions.

Manifold political and military threats to Yugoslav sovereignty have persisted since 1968. The "nationalities issue" has been raised again in the 1970's, spearheaded by the Croatian separatist movement. Tito has repeatedly quashed vocal Croatian demands for greater autonomy under Yugoslavia's policy of decentralized economic and political control. In Tito's view a resurgence of separatist tendencies would lead to the collapse of the Yugoslav state and invite foreign interference. This is particularly true if strident nationalist sentiment is being kindled, as Tito suspects, by the Soviet espionage apparatus in an effort to divide the population and return the country to Russian hegemony.[21]

The Yugoslav leadership also views the consolidation of balanced superpower blocs as a threat to their country. According to the platform of the Tenth Congress of the League of Yugoslav Communists, "the nuclear balance that has been struct, making a general nuclear war less probably that it was before, has simultaneously potentiated the danger of local and limited wars being used as a means of establishing domination."[22]

The threat of Soviet military intervention is still real to the Yugoslavs. Soviet warnings that Yugoslavia's internal policies were endangering "the primacy of communism" in Yugoslavia were combined with demands for aircraft over-flight and ship docking privileges in 1971.[23] Several weeks later the Soviets staged a provocative military maneuver named "Yug" ("South") on Hungarian soil featuring an armored advance toward the Yugoslav border[24] and in 1975 the Austrian government announced the discovery of a Soviet contingency plan to occupy eastern Austria enroute to an invasion of Yugoslavia.[25]

In the face of these various threats Tito has settled on equally diverse solutions. He has attempted, by repression as well as decentralization, to solve the nation's divisive internal problems in order to present a unified front against alien interference. He has sought to institutionalize his political reforms as well as his policy of non-alignment and international cooperation so that continuity will be assured in what is bound to be a hectic period following his death or retirement. Tito has also reinitiated careful discussions with the United States aimed at balancing Yugoslavia's military dependency between the two blocs.[26] Finally, since 1969 Tito has created and enlarged a national militia, the Territorial Defense Force, to serve as the major deterrent against direct military intervention. It is this last organization that will be examined in more detail for the remainder of this paper.

III. RATIONALE FOR TERRITORIAL DEFENSE FORCE

The preceeding section implied several factors in Tito's decision to rely on the TDF as a deterrent to foreign invasion. But before describing the TDF's mission, capabilities, and organization it might be wise to briefly reiterate why the TDF was created.

As explained, the treat to Yugoslav sovereignty takes many forms. But in considering only the direct military threat, three basic scenarios can be envisioned: (1) nuclear warfare in Europe, (2) invasion by a small neighboring nation without the assistance of other nations, and (3) invasion by the forces of a superpower, with or without the aid of its bloc allies. Yugoslavia would be defenseless against the first type of threat; its most meaningful action during an atomic war would be to limit damage inflicted on its own population. On the other hand, an invasion by a nation bordering Yugoslavia, if not actively supported by a major power, could be repulsed by the Yugoslav People's Army, a conventional, and highly professional force of approximately 230,000 men.[27] But while neither of these two eventualities is considered likely, since 1968 the threat of superpower intervention has preoccupied the planning of Yugoslav military strategists.

At present strength the YPA could not hope to match a determined big power invasion in either manpower or equipment. Furthermore, Yugoslavia possesses insufficient resources to maintain a conventional force at the level necessary to deter or defend against such an attack. So if the YPA is helpless in the face of the most realistic threat to Yugoslavia, then what alternatives remain to defend the nation?

Drawing on its memories of World War II, the Yugoslav leadership decided to create a second army - a mass, or partisan, militia. Such an army, by virtue of its size, tactics, will, and intimate knowledge of the area of operations, would constitute at once a significant deterrent to foreign aggression and a potentially powerful defender of the nation. Lightly armed, it would not be prohibitively expensive; well trained, it could supplement the YPA in other than strictly guerrilla-type missions; highly motivated, this citizen army would perpetuate the tradition of mass resistance most recently displayed during World War II.

IV. THE TERRITORIAL DEFENSE FORCE

The National Defense Law of February 1969 and Article 254 of the Yugoslav Constitution established the Territorial Defense Force. The organization was justified under the Leninist maxim of the "armed people" who create a bastion of freedom which turns "all soldiers into citizens and all citizens able to carry arms, into soldiers."[28] Ostensibly directed against no particular opponent, the TDF is clearly a response to the Soviet military challenge.[29]

By 1974 known TDF strength was estimated at one million men.[30] The Yugoslav goal is a TDF force of three million, or more than 25 per cent of the entire male population.

The first large-scale TDF maneuver was staged in October 1971. During that exercise a TDF formation numbering 400,000 men, operating as partisans or in concert with 80,000 YPA regulars, within three days repulsed a superior mechanized and air transportable force advancing from the Hungarian border.[31] Though probably optimistic, that maneuver, appropriately named "Freedom-71," provides a rough idea of how the Yugoslav armed forces intend to defend the country in the event of invasion.

The Yugoslav Constitution denies the right of any citizen to "acknowledge any capitulation or occupation of Yugoslavia," such an act is "punishable as high treason."[32] Accordingly, Yugoslav strategic doctrine calls for defense of its borders and all other territory. A massive blitz attack would be met initially by the YPA, whose job would consist of blunting the invader's spearhead for a few precious hours. Accomplishment of this mission is critical. Success of the holding action would permit the retention and organization of populous border regions and buy time for the orderly nationwide activation of the TDF. After TDF mobilization (Yugoslav sources claim that half the TDF could be mobilized within three to six hours and the remainder within one day[33]) the YPA would disengage from its area defense and adopt more flexible tactics.

At this point the TDF and YPA would operate in tandem under the tactical command of the YPA. Seeking to inflict maximum damage on the invader, forces would conduct static or mobile defense, partisan operations and even counter-attacks, if local superiority were assured. All urban centers and industries, as well as open territory, would be defended; only the direst necessity would permit retreat. Every Yugoslav would fight. If the invader should nevertheless succeed in occupying large areas of the nation,

conventional tactics would be discarded in favor of a partisan war of attrition under local defense commands. This "total national defense" would continue until ultimate victory is won.[34]

The TDF is legally and doctrinally co-equal with the YPA. But, wheras the YPA is a truly national organization encompassing Yugoslavia's various ethnic groups, the TDF is organized on a regional basis. The government of each of the nation's six republics and two autonomous regions is ultimately responsible for raising, training and funding its own TDF formations; only general guidance and YPA technical support is furnished by the central government. Units are organized at the factory, municipality, and republic or region levels. All TDF units have the primary mission of defending their individual localities or commercial enterprises. Arms consist of indigenous rifles, machineguns, and light anti-tank weapons; all arms are readily available in nearby depots. Civil defense forces parallel the TDF structure; these paramilitary formations are thought to presently include 1.3 million people.[35]

This combination of TDF, YPA, and civil defense forces, together with the TDF's tactical doctrine, would appear to constitute a considerable safeguard for Yugoslavia's security. Yugoslav military writers maintain that, even if an aggressor succeeded in winning the bulk of the nation's territory, population, and transportation net, an occupation force of two million troops[36] would be required to truly subdue the country. Such an effort might easily become a prolonged and frustrating task. Indeed, Tito believes that the Soviet Union would be unwilling to spare a force of necessary strength for any long period of time since more critical military commitments exist in Eastern Europe and along the Chinese border.[37] Furthermore, Soviet failure to achieve a rapid "Czechoslovakia-style" victory might lead to unforeseen international repercussions,[38] including possible NATO support of the Yugoslavs and a superpower nuclear showdown.

Yet the creation of the TDF is not without its negative aspects. The costs of maintaining three million TDF irregulars under arms must present a significant problem to the localities and republics which finance the program. Because of the disparity of wealth which exists between regions, TDF units are well manned and trained in some areas and barely off the ground in others.[39]

These regional forces, in the hands of local political leaders, also represent an unknown factor in the ethnic rivalries which Tito has managed to keep under control

during his lifetime. Determining the allegiances of the various TDF commands will become an important question upon Tito's death. The answer to this question may well decide whether Yugoslavia is destined to continue as a unified nation or disintegrate into a cluster of divergent autonomies open to external force.

Finally, although the YPA has yet to voice significant opposition, the TDF has represented a relative deemphasis in the role and status of Yugoslavia's military professionals.[40] Expenditures for the regular forces have increased by over 54 per cent during the decade ending in 1974,[41] but in future competition for scarce resources entrenched parochial interests may serve to undermine the TDF's importance in the national defense structure.

V. CONCLUSIONS

Deterrent value is judged in relation to three criteria. First, forces meant to have deterrent value must appear to possess power sufficient to exact a high cost in relation to an aggressor's expected gain. Second, a potential aggressor must be told that such forces are directed against him. Third, the aggressor must believe that the deterrent forces will certainly be used in defense.[42]

The TDF was created in the wake of the Soviet intervention in Czechoslovakia. Major exercises have been conducted against a "hypothetical" enemy attacking from Hungary. Official Yugoslav statements repeatedly discredit the concept of "limited sovereignty" for members of the "Socialist Commonwealth" and constantly reaffirm Yugoslavia's intention of fighting if its independence is seriously threatened. Its experiences in World War II underline Yugoslavian dedication and tenacity in defense of the fatherland. It is difficult to conceive how the Soviets could fail to agree that the TDF meets the second and third criteria as a deterrent force directed against the Red Army which will certainly be used if necessary.

But have the Russians also concluded that Yugoslavia's Territorial Defense Force would be as difficult to overcome as Yugoslav planners seem to think? To date there has been no Soviet invasion, but that proves little. The Soviets are apprehensive of the "total defense" concept,[43] but they may feel that measures taken to strengthen Yugoslavia's defense are a product of Tito's leadership and will decay after he has passed from the scene. Regional bickering could easily arise in the absence of Tito's unifying personality and the TDF might become merely a symbol of regional strength, or worse, a tool of separatist "warlords" and their opposition.

In such a political environment the TDF would lose whatever deterrent value it ever possessed. The Soviets, if they hold such ambitions, could then engineer a swift military intervention, playing off region, against region and overwhelming the weakened regular forces.

As plausible as the above scenario might appear to some, I am inclined to place a great deal of confidence in the TDF as a deterrent. The TDF possesses a power which any aggressor would never rationally challenge -- the power of an armed and determined population. Even if divided and outgunned, significant elements of the TDF would manage to carry on the fight.[44] A decentralized command system has been operational for years. Arms are readily available throughout the country. The population is trained and constantly reminded of its duty and reputation for waging war against great odds. Enough Yugoslavs would survive an invasion under the worst of circumstances to pursue a bitter struggle for longer than an aggressor would care to become involved. The Soviets, I feel, would have to decide in advance whether they would be willing to take the issue of a Yugoslav intervention to the level of bloc confrontation. As a war in Yugoslavia dragged on NATO would become increasingly interested in its outcome; such a protracted "hot" war in modern Europe involving one superpower could not fail to attract the other. This is a gamble the Soviet Union simply cannot afford to take. Yugoslavia has been outside the Soviet orbit too long now for Russia to risk a nuclear exchange in an attempt to reassert its influence at this late date.

And so it would seem that rational Soviet leaders probably perceive sufficient power in Yugoslavia's TDF to give them pause before launching on an aggressive course. Thus all three deterrent value criteria are met.

Perhaps the Territorial Defense Force is not, after all, what critics have termed a "nostalgic revival of successes" over thirty years old.[45] Perhaps it is instead the means by which Yugoslavia will deter future aggressors and underwrite its continued independence.

Footnotes

1 Pero Moraco, "The Liberation War and Socialist Revolution 1941-1945," Yugoslav Survey 16 (November 1975): 5.

2 Ibid., p. 18.

3 Ibid., p. 13. Forces fighting the NLA at the end of 1943 consisted of 19 German, nine Bulgarian, and three Hungarian divisions plus assorted Yugoslav formations.

4 Gordon C. McDonald et. al., Area Handbook for Yugoslavia (Washington, D.C.: U.S. Government Printing Office, 1971), p. 319.

5 Ibid., p. 277.

6 John C. Campbell, "Insecurity and Cooperation: Yugoslavia and the Balkans," Foreign Affairs 51 (July 1973): p. 779.

7 U.S. Department of Defense. Foreign Military Sales and Military Assistance Facts (Washington, D.C.: Data Management Division, Comptroller, DSAA, 1975), pp. 15-29. Between 1950 and 1961 the United States alone provided military assistance and sales to Yugoslavia in the following amounts: military assistance, $694 million; excess articles at cost, $28 million; and military sales, $11 million, of which $1 million was in credits.

8 William E. Griffith, Eastern Europe After the Invasion of Czechoslovakia (Santa Monica, CA: The Rand Corporation, 1968), p. 39.

9 "The Sword from the North", Economist 229 (26 October 1968): 37.

10 Stephen S. Anderson, "Yugoslavia: The Diplomacy of Balance," Current History 56 (April 1969): 216.

11 Ibid.

12 "Soft Shoe Shuffle," Economist 229 (7 December 1968): 34.

13 "Tito's Press Conference," Pravda, 3 December 1968, p. 4 as translated by The Current Digest of the Soviet Press 20 (25 December 1968): 19. The article reads in part: "Tito gave a resolute rebuff to the provacative rumors being

spread by NATO circles to the effect that the Soviet Union intends to attack Yugoslavia. Tito declared that he sees no reasons for this."

14 "Keep Your Distance, Friend," Economist 232 (6 September 1969): 26.

15 "Sword from the North," Economist, p. 38 and "On Guard," Economist 228 (14 September 1968): 28.

16 "Sword from the North," Economist, p. 38.

17 Anderson, "Diplomacy of Balance," p. 217.

18 "Keep Your Distance," Economist, p. 26.

19 "We'll Stick To Our Guns," Economist 230 (15 February 1969): 30.

20 Anderson, "Diplomacy of Balance," p. 217. Anderson speculated that Katzenbach's mission in Belgrade was to reaffirm Preisdent Johnson's declaration of United State's concern for Yugoslav independence.

21 "Platform for the Preparation of Positions and Decisions of the Tenth Congress of the League of Communists of Yugoslavia," Yugoslav Survey 14 (August 1973): 135.

22 Ibid., p. 226.

23 "No Illusions," Time, 4 October 1971, p. 44.

24 "Every Man a Fighting Man," Time, 18 October 1971, p. 44.

25 "Holding Yugoslavia Together," National Review 27 (29 August 1975): 940.

26 David Binder, "Yugoslavs Delay U.S. Arms Buying," New York Times, 14 May 1976, p. A10.

27 The Military Balance 1974-1975 (London: The International Institute for Strategic Studies, 1974), p. 30.

28 Milojica Pantrelie, "The System and Organization of National Defense," Yugoslav Survey 10 (May 1969): 2, quoting V. I. Lenin, Military Works (Belgrade, 1960), p. 76.

29 Jan L. Lellenbug, Overview of the Citizen-Army Concept (Menlo Park, CA: Standford Research Institute, 1972). p. 31.

30 Military Balance, p. 30.

31 "Every Man," Time and Horst Mendushausew, Territorial Defense in NATO and non-NATO Europe (Santa Monica, CA: The Rand Corporation, 1973), p. 89.

32 Anton Vratusa, "Yugoslavia, 1971," Foreign Affairs 50 (October 1971): 157.

33 Mendushausen, Territorial Defense, p. 87.

34 Ibid., pp. 87-90; Lellenbug, Citizen-Army Concept, pp. 35-40; and A. Ross Johnson, Total National Defense in Yugoslavia (Santa Monica, CA: The Rand Corporation, 1971), pp. 4-8. All three sources provide excellent and detailed discussions of Yugoslav strategy and tactics.

35 Mendershausen, Territorial Defense, p. 88.

36 Lellenbug, Citizen-Army Concept, p. 42. Lellenbug uses Yugoslavian General Vranic's projection of 50 divisions.

37 Mendershausen, Territorial Defense, p. 85 and A. Ross Johnson, The Sino-Soviet Relationship and Yugoslavia (Santa Monica, CA: The Rand Corporation, 1971), p. 13.

38 Lellenbug, Citizen-Army Concept, p. 33.

39 Johnson, Total National Defense, p. 8.

40 Ibid.

41 World Military Expenditures and Arms Transfers 1965-1974 (Washington, D.C.: U.S. Arms Control and Disarmament Agency 1976), p. 52. The percentage given was computed from constant, not inflated dollars. The total cost of the TDF has been almost impossible to calculate since its component costs are listed (or hidden) in the budgets of practically every local government and large industry in Yugoslavia.

42 Glenn H. Snyder, "Deterrence and Defense: A Theoretical Introduction," American Defense Policy, ed. Richard G. Head and Ervin J. Rokke. (Baltimore: The Johns Hopkins University Press, 1975), p. 103.

43 V. Feodvsyev, "What the Yugoslav Press Is Shouting About," Sovetskaya Russia, 5 April 1969, pp. 2-3 as translated in The Current Digest of the Soviet Press 20 (23 April 1969): 3. An excerpt reads: "...the security of Yugoslavia itself rests not in some sort of 'total defense' by its own force but on the existence...of the Warsaw Pact as a mighty anti-imperialist force."

44 Tito's simultaneous fight against both the Chetniks and Germans provides ample historic precedent for this opinion.

45 Johnson, Total National Defense, p.9.

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FINANCIAL MANAGEMENT IN THE MILITARY SEALIFT COMMAND

by

Lieutenant Daniel D. Edwards, USN

The author presents an external overview of the Military Sealift Command (MSC) and an internal analysis of its financial organization. MSC's historical development is traced from the establishment of the Military Sea Transportation Service in 1949, including initial organizational funding, cost analysis, previous performance, and rate and billing procedures. Significant accounting policies are highlighted, the budget cycle is described, and a recent statement of financial condition is analysed which provides the reader with a capsule knowledge of the organization's financial stability.

This paper was presented to Commander J. C. Tibbitts, CEC, U.S. Navy, in partial fulfillment of the course requirements for Financial Management in the Navy (MN 4154).

The Editors

Lieutenant Daniel D. Edwards, U.S. Navy, received his B.S. degree in History from Northwestern University in 1969. He is currently a candidate for the M.S. degree in Management at the Naval Postgraduate School.

I. INTRODUCTION

This analysis of financial management in the Military Sealift Command (MSC) will be composed of an external overview of MSC and an internal analysis of its financial organization. The external overview will include a brief summary of MSC's historical development, an examination of MSC's relations with customers and higher authority, an analysis of authorized and unauthorized costs, a breakdown of MSC's business during recent fiscal years by type of traffic, customers, programmed and actual financial performance with the resultant profit-loss summary, and finally billing and rate procedures. The internal analysis includes a summary of MSC's command and comptroller organization with a listing of the financial management billets, an abstract of the significant accounting policies, a sample budget cycle for the fleet support program, and finally an examination of the current statement of financial condition.

II. THE EXTERNAL VIEW

A. HISTORICAL PERSPECTIVE

On August 2, 1949, the Secretary of Defense, Louis Johnson, directed the establishment of the Military Sea Transportation Service (MSTS). This consolidation of numerous agencies, including the Army Transportation Service, the Naval Transportation Service, the War Shipping Administration, and the Fleet Service Forces was accomplished in accordance with the National Security Act of 1947. The transfer of Army ships and functions was phased over a period of about a year, and the MSTS was organized through the use of the Navy Industrial Fund (NIF) with an initial working capital fund or corpus of $100 million. Operating expenses were to be paid out of this fund and to be reimbursed by the shipper services; thus MSTS was not to receive direct appropriations but to conduct its business much like a commercial steamship company.[1] On May 28, 1956, the consolidation was formalized with the designation of the Secretary of the Navy as Single Manager for Ocean Transportation by Department of Defense Directive No. 5160.10. The Single Manager Operating Agency for Ocean Transportation was MSTS with Commander Military Sea Transportation Service (COMSTS) designated the Executive Director for Ocean Transportation.[2]

In addition to the initial $100 million in working capital, the MSTS also received an additional $21.6 million in supplies aboard ships and in warehouses absorbed by MSTS during the consolidation. During the past 25 years, $69 million has been returned to the Navy Industrial Fund as

excess to operating needs and $9.2 million in supplies has been turned over to the organization, leaving MSC a current corpus of $61.8 million.[3] These transactions are summarized in Appendix A.

In August 1970, the Military Sea Transportation Service became the Military Sealift Command (MSC). This was merely a cosmetic name change as neither the organization's structure nor operations was affected. The change was initiated by the Commander MSTS to make the name more reflective of the command's evolving role as a sealift coordinator and its diminishing troop transport responsibilies; the change also kept the name somewhat parallel to the Air Force Transportation Service which had previously changed its name from the Military Air Transportation Service (MATS) to the Military Airlift Command (MAC).

Throughout 1971 and early 1972, there was strong pressure from the Office of the Assistant Secretary of Defense (Program Analysis and Evaluation) for the transfer of MSC's functions to the Army's Military Traffic Management and Terminal Service (MTMTS).[4] There was considerable controversy and agency pressure involved in this proposal which was developed primarily as a result of the evolution of containerized cargo movement. The issue was eventually resolved at the Congressional committee level where the proposal was rejected.

Currently the Military Sealift Command has managed all ocean transportation of cargo and petroleum products (POL), and operated various project ships for services or agencies requiring an ocean-going platform for research or other activities. MSC's newest role has been that of operating fleet support ships. Since 1972 MSC has been operating fleet oilers and tugs with civil service marine personnel and small military detachments. An example of the diverse requirements which MSC fulfills for its customers was the chartering of a ferry boat on July 4, 1976, for the Navy to carry personnel out to the USS FORRESTAL (CV-59) for the Tall Ships Review in New York City.[5] A listing of MSC's government-owned ships has been provided in Appendix B.

B. EXTERNAL RELATIONSHIPS

The most significant relationship for MSC like all industrially-funded activities are its customer relations. MSC serves all of the services in the Department of Defense (DOD) with the Army being its largest customer. MSC

also serves various non-DOD agencies such as NASA (National Aeronautics and Space Administration), AID (Agency for International Development), and NSF (National Science Foundation).

MSC receives considerable guidance from higher authority in serving its customers. Administratively, most MSC policy is formulated by the MSC Advisory Board, which is chaired by the Assistant Secretary of the Navy for Installations and Logistics (ASN-I&L); other members are the Assistant Secretary of the Navy for Financial Management (ASN-FM), the Deputy Chief of Naval Operations for Logistics (OP-04), and the Commander Military Sealift Command (COMSC). The Advisory Board's functions are to review current major operations and financial performance and to consider specific issues and problem areas requiring a coordinated approach for solution.[6] Operationally, MSC ships are controlled by the Navy with COMSC reporting directly to the Chief of Naval Operations (CNO). The most recent extended operational utilization of MSC cargo ships was the Vietnamese evacuation in March-May 1975.

C. COST ANALYSIS

As an activity of the Navy Industrial Fund, MSC has very specific regulations regarding which costs can and cannot be charged through the NIF to its customers. Costs which are authorized include: 1) civilian payrolls, 2) supplies, materials and provisions, 3) maintenance, repair, and alteration of ships, 4) activation and inactivation of ships, 5) travel, and 6) charter or hire of ships. The full cost of Appropriation Purchase Account (APA) material is included in the authorized, chargeable costs; although MSC is part of the Navy Department, it pays for this type of material which is normally not charged to the actual user. This permits MSC to bill the actual user of the ship for these costs rather than having the Navy absorb them.

Many categories of costs cannot be charged by MSC directly to its customers, but several are included in customer billings in various ways. Unauthorized costs include: 1) new construction or conversion of ships - MSC has had ships built for long term lease which permits the construction costs to be charged to customers (This was accomplished in 1972 with the procurement of nine 25,000 ton tankers.[7]), 2) military characteristics of ships, 3) construction or alteration of real property in excess of $25,000, 4) plant account material ashore in excess of $1000, 5) military pay - as in all industrially

funded activities, 6) terminal charges, 7) battle damage - repairs could be made from reserve funds which are built-up by charging customers, and 8) contingency requirements - although this restriction has always been in effect, MSC has prior to Fiscal Year 1977 (FY-77) included the cost of its excess (contingency) capability in its overhead. Effective FY-77, the Navy will pay directly for this $4 million annual requirement as the Air Force will also commence directly absorbing the $15 million annual cost of MAC's contingency capability.

D. TYPES OF TRAFFIC, CUSTOMERS, AND FINANCIAL PERFORMANCE DURING RECENT FISCAL YEARS

During recent fiscal years dry cargo movements have accounted for approximately three-fifths of MSC's dollar-volume business. As MSC's government-owned cargo ships consisting primarily of the aging Victory-class have been put out of service, almost all dry cargo has been moved by commercial ship with only nine, six, and three percent carried in government ships in FY-74, FY-75, and FY-76, respectively. POL movements have constituted about a fifth of the dollar-volume, with the Defense Fuel Supply Center (DFSC) naturally being the major customer for this service. The percentage of POL movement by both commercial and government-owned bottoms declined during recent years as the new Falcon-class tankers procured by the lease arrangement mentioned above entered MSC operation. These tankers have been leased on a bareboat charter in that just the ship with no crew has been made available to MSC.

A recent distribution of MSC traffic has been provided in Appendix C. Recently, passenger movement by MSC has not been a significant portion of its business as almost all personnel have been flown by MAC to and from overseas assignments. Approximately 700-800 passengers have been moved annually during recent years by sea when flights to remote areas were not available. Project ships which MSC operates for various services and agencies as research platforms have madeup about a tenth of MSC's dollar-volume, and fleet support operations have also contributed a tenth. This latter portion has been constantly increasing as the MSC fleet support fleet has expanded from one oiler in 1972 to its present eight oilers, four fleet tugs, and one reefer ship.

An analysis of FY-75 and FY-76 financial performance as shown in Appendix D revealed that expenses, revenues, and profit or loss have been programmed each year by MSC for each type of service. Profits have been programmed

when losses have been incurred during the previous year's operations. If the losses were substantial or programmed profits were not realized, profits have been programmed for several consecutive years. MSC's long-run goal, like all industrially-funded activities, has been to provide all requested services and break-even financially. A view of MSC's financial operating results reveals that for its first 20 years of operations it fulfilled this goal by staying relatively close to the break-even point each year; however, in FY-73 and FY-74 losses totalling $40 million and $78 million were incurred.

The reasons for these sharp losses were three-fold. First, the drastic increase in oil prices forced MSC's costs up far beyond what could have been forecast as propulsion fuel constitutes a major portion of the cost of ocean transportation. Secondly, the various labor unions representing both the civil service mariners on government-owned ships and the commercial crews on contract-operated ships all secured large retroactive wage settlements due to double-digit inflation prevailing in the mid-1970's. All of this was compounded by MSC's simultaneous adoption of a rate stabilization program for its customers; this prevented the adjustment of rates during the fiscal year. The stabilization program was highly desired by MSC's customers to permit appropriation stability, to improve management planning, and to eliminate the administrative crisis caused by mid-year rate hikes. The program has required the NIF activity to pass on profits or recoup losses from customers in later years.

E. RATE AND BILLING PROCEDURES

Dry cargo movements are charged to the shipper service or agency on a basis of measurement-tons-per mile (M/T/M) with a fixed rate being charged to all customers regardless of volume or route. The estimated costs to ship all dry cargo requirements are totalled, and associated overhead costs are added, then this sum is divided by the total lift requirements times the mileage to produce this rate. (See Figure 1.) This same procedure is followed to determine a rate per long-ton-per-mile (L/T/M) for POL movements.

$$\frac{\text{Shipping Expense + Overhead Allocation}}{\text{Lift Requirements x Budgeted Distance}} = \text{rate per M/T/M}$$

Figure 1

The project ships which MSC operates for sponsoring agencies are billed on a basis of full cost reimbursement. The costs of fleet support ships are billed monthly to the appropriate fleet commander-in-chief on a per diem basis. Estimated annual operating expenses for each ship plus the overhead allocation for that ship is divided by the budgeted operating days to detemine its per diem rate.

III. THE INTERNAL VIEW

The Military Sealift Command can be viewed as a large organization which receives shipping or ship operation requirements in the form of Military Interservice Project Requests (MIPR's). Then considering government-owned and commercial shipping capacity together with previous workload statistics MSC generates force plans in the form of nucleus (government-owned) ship operations, and various commercial contract operations which take the form of time charters (TC), commercial voyage charters (CVC), and bareboat charters (BBC).

A partial MSC organization chart is included as Appendix E. Commander Military Sealift Command is a Rear Admiral with his headquarters staff located in Washington; his comptroller is a GS-16. Four MSC area commanders are also Rear Admiral billets, but the Far East Command (COMSCE) and the Eastern Atlantic and Mediterranean Command (COMSCELM) have been headed by Captains for several years. The other two area commanders, Atlantic (COMSCLANT) and Pacific (COMSCPAC) are "two-hatted" Rear Admirals as they also serve as Commandants of the Third and Twelfth Naval Districts respectively. The Comptroller at COMSCELM is a Navy Commander who also serves as the command's Supply Officer. The other three area commanders have full-time comptrollers who are Navy Commanders. These comptroller billets have been designated as supply corps billets, but are all programmed to transition to unrestricted line between 1976 and 1980. COMSC has submitted correspondence requesting that the billets continue to be filled by supply corps officers, but no response to the request has been received.

A. SIGNIFICANT ACCOUNTING POLICIES

MSC's accounting policy is directed primarily to the NIF Handbook for MSC (NAVSO P-1280 published by the Navy Comptroller; additional guidance is included in Department of Defense Directive 7410.4. At the end of reporting periods, MSC reports costs and revenues for nucleus and chartered movements of POL and dry cargo based on the

percentage of the voyage completed. The association costs and revenues for cargo movements based on government bill of lading (GBLs) are reported in full on the date of sailing. Fleet support and project ship costs are reported as they are incurred and revenues as the sponsor is billed, normally on a monthly basis.[8]

MSC's accounting system, like that of all NIF activities, operates on an accrual basis with the major exception that depreciation of its ships and other assets is not taken into account. The basis of this accrual aspect is the reserve funds which MSC maintains by charging its customers costs including monthly payments into the funds. Reserves are maintained by MSC for regular maintenance and repair of ships, accidental damage repairs to ships, claims pending against MSC, and projected lump sum retirement or separation payments for employees.[9]

B. BUDGET CYCLE

As an example of MSC budgeting, the formulation and execution of the budget for a fleet support ship will be traced; the dates will reflect the old Congressional budget cycle since MSC has not yet utilized the new one, as it budgeted for the transition quarter (7T) with FY-77. The fleet commanders-in-chief submit their requirements (MIPR's) to COMSC in December stating the number of days each fleet support ship is desired to be in full operating status (FOS); this does not give MSC any information regarding anticipated days underway. COMSC passes this information together with a fuel price planning figure to the appropriate area commanders in mid-January with the MSC budget call. The area commanders are required to estimate each ship's operating expenses for each cost category. Appendix F lists all the categories which must be considered. The area commanders then submit this data together with their estimated overhead expenses (Appendix G lists overhead expense categories) to COMSC no later than 1 March.[10]

COMSC then, after reviewing these inputs, submits its combined budget to the Secretary of the Navy (SECNAV) and the Office of the Secretary of Defense (OSD) in late March. Approval is normally received in early June, and then COMSC issues its formal A-11 budget which is utilized by MSC's customers to insure appropriations are adequate to pay for all budgeted services. COMSC then forwards approved operating budgets to the area commanders in two forms. The ship's budgets are broken down by specific account and sub-program. The specific account-based budget is utilized for control with monthly variance reports required by COMSC

for each category. The sub-program budget and the monthly totals on the specific budget are utilized as absolute ceilings which cannot be exceeded without customer approval; however, monthly totals may be shifted from one month to another without external approval.

C. STATEMENT OF FINANCIAL CONDITION

MSC's most recent statement of financial condition has been included as Appendix H. It can be seen that it looks much like that of any corporation with assets including cash, accounts receivable, inventories, and other assets such as deferred charges and travel advances. Included as liabilities are accounts payable, accrued expenses, uncompleted voyage revenues, and reserves. The equity, or for a NIF activity its "capital of the fund," includes both the current amount of MSC's corpus and its retained earnings or accumulated profits (or less accumulated losses). MSC's current "capital of the fund" is $138,229,223 composed of the corpus of $61,836,496 and retained earnings of $76,392,727.[11] MSC is programming losses in FY-77 to reduce the retained earnings and is contemplating returning a portion of the corpus to the Navy Industrial Fund.

LIST OF APPENDICES

CAPITAL OF FUND ANALYSIS
1 JULY 1951 THROUGH 30 JUNE 1976

SECTION	Balance 7-1-51 (Adjusted)	CHANGES 7-1-51 Through 6-30-75	Current Fiscal Year Month	Current Fiscal Year Year to Date	Balance
I. Capital					
Cash Allocated	$100,000,000	$(69,000,000)			$ 31,000,000
Inventories Donated	21,601,404	9,235,092			30,836,496
Sub-total	$121,601,404	$(59,764,908)			$ 61, 836,496
II. Liabilities Charged Against Capital					
Annual Leave	$(4,413,714)	$			$(4,413,714)
Claims - Bareboat Charters	(4,000,000)	4,000,000			
M & R Reserve		(10,427,130)			(10,427,130)
Sub-total	$(8,413,714)	$(6,427,130)			$(14,840,844)
Net Capital I - II	$113,187,690	$(66,192,038)			$ 46,995,652)
III. Retained Earnings					
Beginning of Fiscal Year	$ XXXXX	$ 6,599,476	$	$	$ 6,599,476
Fiscal Year Operating Results Exhibits B and C	XXXXX		1,918,833	70,682,207	70,682,207
Adjustments:					
Prior Fiscal Year	XXXXX			(888.956)	(888,956)
Total Retained Earnings	$ XXXXX	$ 6,599,476	$1,918,833	$69,793,251	$ 76.392,727
Capital of Fund Total (Exhibit A)	$113,187,690	$(59,592,562)	$1,918,833	$69,793,251	$123.388,379

APPENDIX A

APPENDIX A

APPENDIX B

SUMMARY OF MSC SHIPS AND SERVICE CRAFT - 1 APRIL 1976

CLASS	TOTAL	COMSC	LANT	PAC	FE
TOTAL 1/	67	14	29	24	
TOTAL ACTIVE	**58**	**14**	**24**	**20**	
AK	2		2		
AKR	2		1	1	
AO	5	5			
AOG	3			3	
AO BB CSMPM	2			2	
AO Sealift Class	9	9			
AG	1		1		
AGM SPECIAL	4		3	1	
AGOR PROJECTS	5		3	2	
AGS	7		5	2	
ARC	3		1	2	
AF	1		1		
AK FLEET	3		2	1	
AO SUPPORT	7		3	4	
ATF	4		2	2	
TOTAL INACTIVE 2/	**9**		**5**	**4**	
AGM	2		1	1	
AGS	2		1	1	
AK	3		1	2	
AO	2		2		

1/ Excludes: Two (2) YFNB's assigned to MSCO HONOLULU.
2/ Includes: Ships in RRS, under conversion, activating and inactivating.

DISTRIBUTION OF MSC TRAFFIC

	FY 75	FY 76 ACT 1ST 6 MONTHS	FY 76 PROJECTED
DRY CARGO (M/T's)	9,243,139	3,976,838	8,110,000
GOV'T OWNED SHIPS	6%	5%	3%
COMMERCIAL SHIPS	94%	95%	97%
PETROLEUM (L/T's)	11,401,191	5,905,998	11,160,000
GOV'T OWNED SHIPS	30%	16%	19%
BAREBOAT CHARTERED SHIPS	21%	38%	41%
COMMERCIAL SHIPS	49%	46%	40%

APPENDIX C

MSC EXPENSES - FY 75
(MILLIONS OF DOLLARS)

CATEGORY	PROGRAMMED EXPENSE					ACT. EXPENSE FY 75
	ARMY	NAVY	AIR FORCE	DESC & OTHER	TOTAL	
DRY CARGO	$ 342.8	$ 123.6	$ 95.5	$ -	$ 561.9	$ 534.5
PETROLEUM	-	1.2	0.6	224.3	226.1	175.6
PROJECT	0.5	72.5	17.2	4.8	95.0	102.2
FLEET SUPPORT	-	46.1	-	-	46.1	36.7
OTHER	-	-	-	-	-	-
TOTAL EXPENSE	$ 343.3	$ 243.4	$ 113.3	$229.1	$929.1	$ 849.0
% OF TOTAL	37%	26%	12%	25%	100%	

APPENDIX D - 1

MSC REVENUE - FY 75

(MILLIONS OF DOLLARS)

SOURCE	PROGRAMMED REVENUE ARMY	NAVY	AIR FORCE	DFSC & OTHER	TOTAL	ACT. REVENUE FY 75
DRY CARGO	$ 369.8	$ 140.5	$ 103.1	$ -	$ 613.4	$ 578.1
PETROLEUM	-	3.4	0.8	248.3	252.5	217.0
PROJECT	0.5	73.4	17.2	4.8	95.9	103.0
FLEET SUPPORT	-	46.1	-	-	46.1	36.7
OTHER	-	-	-	-	-	0.3
TOTAL REVENUE	$ 370.3	$ 263.4	$ 121.1	$ 253.1	$1,007.9	$ 935.1
% OF TOTAL	37%	26%	12%	25%	100%	

APPENDIX D - 2

MSC PROFIT - FY 75

(MILLIONS OF DOLLARS)

CATEGORY	PROGRAMMED PROFIT SOURCE — ARMY	NAVY	AIR FORCE	DFSC & OTHER	TOTAL	ACTUAL P/(L) FY 75
DRY CARGO	$ 27.0	$ 16.9	$ 7.6	$ -	$ 51.5	$ 43.6
PETROLEUM	-	2.2	0.2	24.0	26.4	41.4
PROJECT	-	0.9	-	-	0.9	0.8
FLEET SUPPORT	-	-	-	-	-	-0-
OTHER	-	-	-	-	-	0.3
TOTAL PROFIT	$ 27.0	$ 20.0	$ 7.8	$ 24.0	$ 78.8	$ 86.1

APPENDIX D - 3

MSC EXPENSES - FY 76

($ MILLIONS)

OSD APPROVED

CATEGORY	PROGRAMMED EXPENSE* ARMY	NAVY	AIR FORCE	DFSC & OTHER	TOTAL	ACT. EXPENSE 1ST 6 MONTHS FY 76
DRY CARGO	$238.1	$105.5	$110.4	$ 7.8	$461.8	$ 216.4
PETROLEUM	-	3.5	1.4	164.7	169.6	88.2
PROJECT	-	62.2	16.5	4.6	83.3	37.7
FLEET SUPPORT	-	94.3	-	-	94.3	43.5
OTHER	-	-	-	-	-	-
TOTAL EXPENSE	$238.1	$265.5	$128.3	$177.1	$809.0	$ 385.8
% OF TOTAL	29%	33%	16%	22%	100%	

*REVISED DEC 1975

APPENDIX D - 4

MSC REVENUE - FY 76

($ MILLIONS)

OSD APPROVED

CATEGORY	PROGRAMMED REVENUE* ARMY	NAVY	AIR FORCE	DFSC & OTHER	TOTAL	ACT. REVENUE 1ST 6 MONTHS FY 76
DRY CARGO	$255.6	$ 113.3	$118.5	$ 8.4	$495.8	$ 244.3
PETROLEUM	-	3.8	1.5	179.7	185.0	104.5
PROJECT	-	62.1	16.5	4.6	83.2	38.2
FLEET SUPPORT	-	91.4	-	-	91.4	45.3
OTHER	-	-	-	-	-	0.1
TOTAL REVENUE	$255.6	$270.6	$136.5	$192.7	$855.4	$ 432.4
% OF TOTAL	30%	32%	16%	22%	100%	

* REVISED DEC 1975

APPENDIX D - 5

MSC PROFIT/(LOSS) - FY 76

($ MILLIONS)

OSD APPROVED

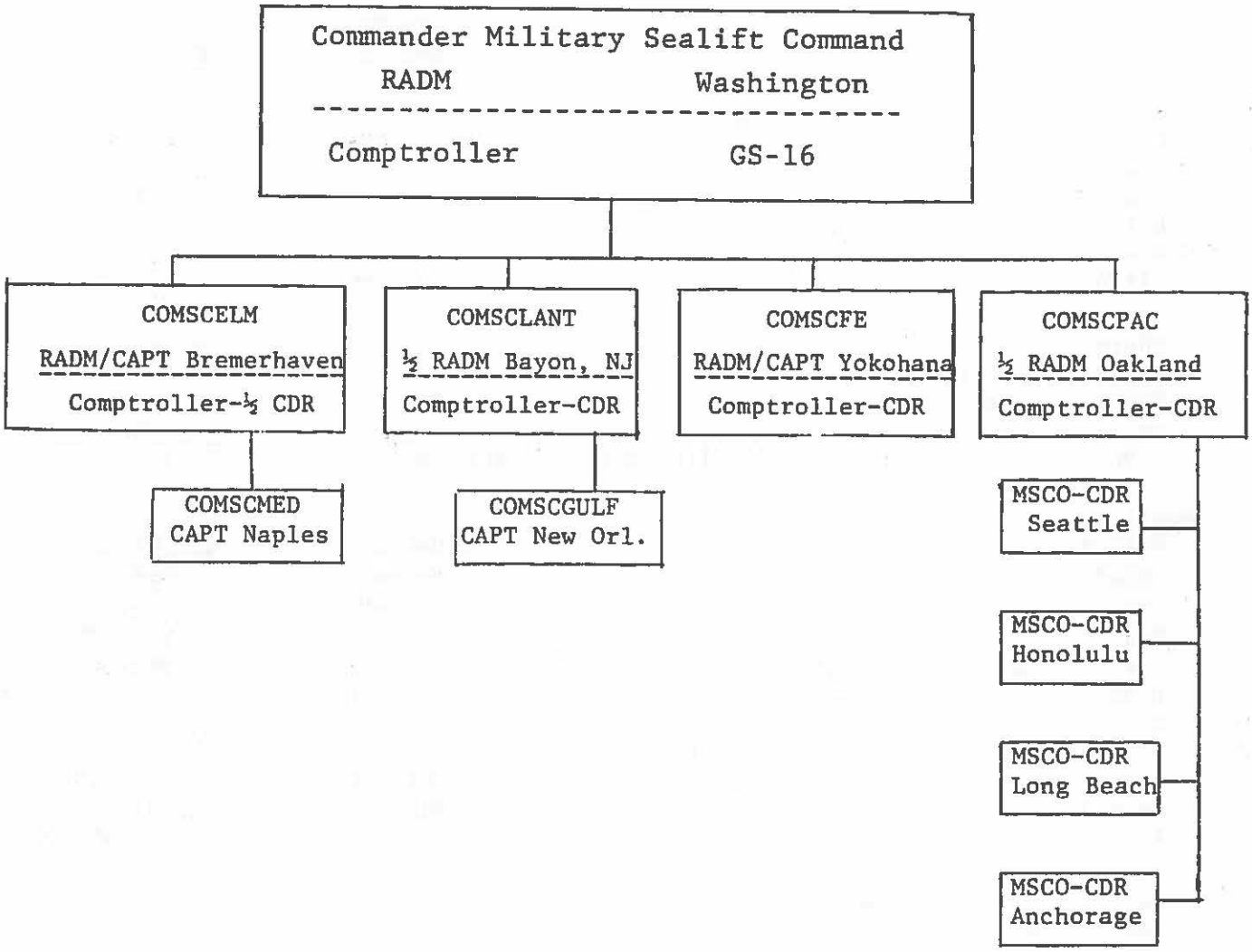
CATEGORY	PROGRAMMED PROFIT/(LOSS)* ARMY	NAVY	AIR FORCE	DFSC & OTHER	TOTAL	ACTUAL P/(L) 1ST 6 MONTHS FY 76
DRY CARGO	$17.5	$ 7.8	$ 8.1	$ 0.6	$34.0	$27.9
PETROLEUM	-	0.3	0.1	15.0	15.4	16.3
PROJECT	-	(0.1)	-0-	-0-	(0.1)	0.5
FLEET SUPPORT	-	(2.9)	-	-	(2.9)	1.8
OTHER	-	-	-	-	-	0.1
TOTAL PROFIT	$17.5	$ 5.1	$ 8.2	$15.6	$46.4	$46.6

* REVISED DEC 1975

APPENDIX D - 6

APPENDIX E

Partial MSC Organization Chart



APPENDIX F

MILITARY SEALIFT COMMAND
NUCLEUS SHIPS EXPENSE
FOR THE PERIOD 1 JULY 1975 THROUGH 30 JUNE 1976

	CURRENT QUARTER	CUMULATIVE
Salaries and Wages, Civilian Marine		
Regular Time	$ 8,073,320	$ 34,774,643
Overtime	4,242,978	17,918,128
Compensatory Time, Civilian Employees	67,932	443,378
Relief Officers	95,568	431,689
Bonuses	25,412	136,236
All Other Premium Pay	714,472	3,208,733
Annual, Sick and Military Leave	2,064,951	7,679,184
Shore Leave	1,152,503	4,043,141
Indoctrination and Training	93,896	195,253
Awaiting Assignment	223,098	975,051
Employer Contributions	1,152,197	4,513,669
Total Salries and Wages, Civilian Marine	$17,906,309	$ 74,319,105
Other Expenses		
Propulsion Fuel	$ 6,395,084	$ 33,193,829
Subsistence	899,932	3,969,917
Travel	209	5,981
Repatriation	551,514	1,616,901
Cash in Lieu of Subsistence and Quarters	158,845	986,583
Consumable Supplies	2,338,114	7,956,470
Medical and Dental Expense	75,070	213,427
Transportation and Handling of Supplies	333,605	1,432,814
Laundry Expense	41,856	200,455
Port Expense	905,638	2,891,805
Repairs to Special Material in Store	23,696	136,950
Loss on Special Material by Disposal	14,075	254,963
Loss (Gain) on Special Material by Inventory	104,000	(822,014)
Ship Equipage	348,626	1,206,382
Container & Related Expense	1,976	1,976
Maintenance & Repair of Ships	7,124,955	36,463,312
Accident and Damage Repairs	573,547	2,327,556
Alteration of Ships, Unprogrammed	128,430	755,321
Alteration of Ships, Programmed	1,234,772	12,329,117
Extraordinary Repairs	1,405,115	4,394,036
Miscellaneous	231,971	818,218
Total Other Expenses	$22,891,030	$110,333,999
Total Nucleus Ships Expense	$40,797,339	$184,653,104
Less: Reimbursable Nucleus Ships Expense	$ 1,638,860	$ 7,233,803
Net Nucleus Ships Expense	$39,158,479	$177,419,301

APPENDIX G

OVERHEAD EXPENSE
FOR THE PERIOD 1 July 1975 THROUGH 30 JUNE 1976

DESCRIPTION	CURRENT QUARTER	CUMULATIVE
Salaries and Wages Expense		
Regular Time	$3,633,959	$13,980,167
Overtime	70,691	388,103
Annual, Sick and Military Leave	480,553	2,155,366
Indigenous Labor	363,754	1,146,604
Employer Contributions	393,922	1,474,698
Total Salaries and Wages Expense	$4,942,879	$19,144,938
Other Expenses		
Travel	$ 212,172	$ 688,786
Public Information	218	890
Occupancy of Premises	301,010	1,213,520
Office Equipment, Rental and Services	296,951	1,067,801
Office Expenses, Stationery and Postage	119,400	441,080
Communications	153,216	678,630
Automotive Equipment Expense	17,378	72,499
Operational Equipment Expense	8,697	18,489
Office Equipment and Maintenance	59,268	152,289
Medical Expenses, Civilian Personnel	14,902	36,614
Cash in Lieu of Quarters	26,197	111,130
Other Overhead Expense	2,357,387	4,890,915
Total Other Expenses	$3,566,796	$ 9,272,643
Total Overhead Expense	$8,509,675	$28,417,581
Less Reimbursable Overhead Expenses	$2,346,882	$ 4,277,111
Net Overhead Expense	$6,162,793	$24,140,470

APPENDIX H

MILITARY SEALIFT COMMAND
STATEMENT OF FINANCIAL CONDITION

As of 30 June 1976

ASSETS			
CASH			$139,344,205
ACCOUNTS RECEIVABLE:			
Operations		$121,122,305	
Miscellaneous:			
Government Agencies	$ 479,113		
Other	7,773,530	8,252,643	
Total Accounts Receivable			129,374,948
INVENTORIES:			
Special Material		$ 24,206,962	
Material in Transit a/		224,962	
Special Material Held for Repair or Disposal:			
Standard Price	$1,098,592		
Less-Reserve for Repairs	129,430	954,162	
Consumable Supples Ships		804,646	
Subsistence Stores		1,223,386	
Propulsion Fuel		4,299,872	
Miscellaneous Materials and Supplies		968,055	
Less-Reserve for Reimbursable Shipboard Inventories		1,145,754	
Total Inventories			31,546,291
OTHER ASSETS:			
Deferred Charges		$ 9,160,918	
Travel Advances		60,420	
Unallocated Costs		0	
Total Other Assets			9,221,338
TOTAL ASSETS			$309,486,782

a/ Aged analysis of Material in Transit Inventory:

1 - 30 Days	$ 131,399
31 - 60 Days	0
61 - 90 Days	64,292
Over 90 Days	29.271
Total	$ 224,962

MILITARY SEALIFT COMMAND
STATEMENT OF FINANCIAL CONDITION (CONTINUED)
AS OF 30 JUNE 1976

LIABILITIES			
ACCOUNTS PAYABLE:			
Government Agencies:			
Vouchers Payable	$ 28,651		
Miscellaneous	2,004,286	$ 2,032,937	
Other:			
Vouchers Payable-Commercial	$ 333,335		
Shipping Contracts Payable W/H Portion	891,940		
Withholdings from Employees	1,275,846		
Employees Allotments Payable	1,260,121		
Miscellaneous	461,650	4,222,892	
Total Accounts Payable			$ 6,255,829
ACCRUED EXPENSES:			
Charter Costs		$ 38,641,711	
Shipping Contracts		129,192	
GBL Shipments		9,360,302	
Government Owned-Contractor Operated		2,213,754	
Annual Leave, Civilian Employees		4,514,815	
Shore Leave, Civilian Employees		3,640,850	
Compensatory Time, Civilian Employees		374,571	
Supplies and Services		18,172,236	
Maintenance and Repair of Ships		21,328,719	
Shipping Agreements/Contracts Containers		20,580,665	
Shipping Agreements/Contracts Breakbulk		5,501,418	
Contractual Support of Southeast Asia		3,780,338	
Salaries and Wages		8,095,625	
Employer's Taxes and Contributions		623,751	
Pay and Allowances, Indigenous Personnel		179,807	
Total Accrued Expenses			137,137,754
OTHER LIABILITIES:			
Uncompleted Voyage Revenue			5,838,393
RESERVES:			
Settlement of Claims		$ 24,572,541	
Maintenance and Repair of Ships		8,568,091	
Accident and Damage Repairs		2,434,899	
Retirement of Indigenous Personnel		1,290,906	
Total Reserves			36,866,427
TOTAL LIABILITIES b/			$186,098,403
TOTAL CAPITAL OF FUND			123,388,379
TOTAL LIABILITIES AND CAPITAL OF FUND			$309,486,782

MILITARY SEALIFT COMMAND
STATEMENT OF FINANCIAL CONDITION (CONTINUED)
AS OF 30 JUNE 1976

b/ Amount of MSC contracts and orders outstanding for undelivered services materials and supplies not included under liabilities:

Maintenance and Repair Contracts	$ 5,000	$ 45,000	$ 50,000
Ocean Transportation Charters		234,928,123	234,928,123
Other Materials & Supplies & Services	40,357	96,330	136,687
Total	$ 45,357	$235,069,453	$235,114,810

Footnotes

1 Bureau of Naval Personnel, Military Sea Transportation Service, United States Government Printing Office, Washington, 1962, pp. 13-16.

2 Ibid., p. 20.

3 Military Sealift Command, Financial Statement of June 1976, Commander Military Sealift Command, Washington, 1976, p. 10.

4 Assistant Secretary of Defense (Program Analysis and Evaluation), Sealift Procurement and National Security Study, August, 1972, pp. 42-45.

5 Military Sealift Command, Sealift 26 (June 1976): 14-15.

6 Secretary of the Navy Instruction 5240.177.

7 Off-Budget Financing, Forbes 55 (July 15, 1972).

8 Military Sealift Command, Financial Statement of June 1976, pp. 2-3.

9 Ibid, p. 3.

10 COMSC Instruction 7130.1F, 'MSC Budgeting under the Navy Industrial Fund,' January 15, 1975, pp. 1-3.

11 Military Sealift Command, Financial Statement of June 1976, pp. 6-7.

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Prina L. Edgar, "Will the Minnow Swallow the Whale? (Defense Department Plan to Transfer Ocean Transportation Management form MSC to the Military Transportation Management and Terminal Service (MTMTS)," Sea Power (October, 1971), pp. 37-39.

Secretary of the Navy Instruction 5240.177, MSC Advisory Board, Washington, 1973.